

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said method comprising the steps of:
 - a) examining the coefficients of a DCT block to determine the position of the End of Block (EOB) coefficient;
 - b) selecting an iDCT algorithm ~~to be an iDCT_low algorithm or an iDCT_high algorithm~~ according to the position of said EOB coefficient and using an EOB histogram for B-frames; and
 - c) executing said iDCT algorithm.
2. (Currently Amended) The method of claim 1, wherein said iDCT algorithm is an iDCT_high algorithm available to said method is determined by creating and selected using an EOB histogram of the first B-frame of a shot.
3. (Currently Amended) The method of claim 1, wherein said iDCT algorithm is an iDCT_low algorithm available to said method is determined by creating and selected using an EOB histogram of the first B-frame of a shot.
4. (Currently Amended) A system for reducing iDCT execution time, said system comprising:
 - a) determination means for determining the position of an End of Block (EOB) coefficient in a DCT block;

b) selection means for selecting an iDCT algorithm ~~to be an iDCT_low algorithm or an iDCT_high algorithm~~ based upon the position of said EOB coefficient and using an EOB histogram for B-frames; and

c) execution means for executing said iDCT algorithm.

5. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) determination means for determining the position of an End of Block (EOB) coefficient in a DCT block;

b) selection means for selecting an iDCT algorithm based upon the position of said EOB coefficient; and

c) execution means for executing said iDCT algorithm;

wherein said iDCT algorithm is determined by creating an EOB histogram of the first B-frame of a shot.

6. (Currently Amended) A computer readable medium containing instructions for selecting and executing inverse discrete cosine transform (iDCT) algorithms, said instructions performing the steps of:

a) examining the coefficients of a DCT block to determine the position of the End of Block (EOB) coefficient;

b) selecting an iDCT algorithm ~~to be an iDCT_low algorithm or an iDCT_high algorithm~~ according to the position of said EOB coefficient and using an EOB histogram for B-frames; and

c) executing said iDCT algorithm.

7. (original) The method of claim 2 wherein said iDCT_high algorithm is based upon an EOB coefficient of 39 or 40.

8. (original) The method of claim 3 wherein said iDCT_low algorithm is based upon an EOB coefficient of 14 or 25.

9. (original) The medium of claim 6 wherein said iDCT_high algorithm is based upon an EOB coefficient of 39 or 40.

10. (original) The medium of claim 6 wherein said iDCT_low algorithm is based upon an EOB coefficient of 14 or 25.

11. (Currently Amended) A system for reducing inverse discrete cosine transform (iDCT) execution time, said system comprising:

- a) a plurality of iDCT algorithms comprising an iDCT_high algorithm and an iDCT_low algorithm;
- b) a switch for selecting a selected algorithm from said plurality of iDCT algorithms and using an End of Block histogram for B-frames; and
- c) a computer processor for executing said selected algorithm.

12. (Currently Amended) The system of claim 11 wherein said switch accepts as input:

- a) a block of DCT coefficients;
- b) an End of Block (EOB) address; and
- c) a picture type rate.

13. (Previously Presented) The system of claim 11 wherein said plurality of iDCT algorithms further comprises:

iDCT_Normal, iDCT_AC and iDCT_DC.

14. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) a plurality of iDCT algorithms comprising iDCT_Normal, iDCT_high, iDCT_low, iDCT_AC and iDCT_DC;

b) a switch for selecting a selected algorithm from said plurality of iDCT algorithms, wherein said switch accepts as input:

- 1) a block of DCT coefficients;
- 2) an End of Block (EOB) address; and
- 3) a picture type rate; and

c) a computer processor for executing said selected algorithm;

wherein said iDCT_high algorithm is selected based on an EOB value of 39 or 50.

15. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) a plurality of iDCT algorithms comprising iDCT_Normal, iDCT_high, iDCT_low, iDCT_AC and iDCT_DC;

d) a switch for selecting a selected algorithm from said plurality of iDCT algorithms, wherein said switch accepts as input:

- 1) a block of DCT coefficients;
- 2) an End of Block (EOB) address; and
- 3) a picture type rate; and

c) a computer processor for executing said selected algorithm;

wherein said iDCT_low algorithm is selected based upon an EOB value of 14 or 25.

16. (Previously Presented) A system for reducing iDCT execution time, said system comprising:

a) a plurality of iDCT algorithms comprising iDCT_Normal, iDCT_high, iDCT_low, iDCT_AC and iDCT_DC;

e) a switch for selecting a selected algorithm from said plurality of iDCT algorithms, wherein said switch accepts as input:

1) a block of DCT coefficients;

2) an End of Block (EOB) address; and

3) a picture type rate; and

c) a computer processor for executing said selected algorithm;

wherein said iDCT_low and iDCT_high algorithms are determined based upon an EOB histogram of the first B-Frame of a shot.

17. (New) A method for selecting and executing a plurality of inverse discrete cosine transform (iDCT) algorithms, said method comprising the steps of:

examining the coefficients of a discrete cosine transform (DCT) block to determine a position of the End of Block (EOB) coefficient;

selecting an iDCT algorithm from the plurality of iDCT algorithms according to the position of said EOB coefficient and using an EOB histogram for B-frames in a shot; and executing the selected iDCT algorithm.

18. (New) The method of claim 17 wherein the shot includes a sequence of frames bounded on each side by a video transition.
19. (New) The method of claim 18 wherein the video transition includes one of a cut frame, a dissolve, or a cross-dissolve.
20. (New) The method of claim 17 wherein the plurality of iDCT algorithms includes one of: iDCT_Normal, iDCT_AC, iDCT_high, iDCT_low and iDCT_DC.